

APPENDIX: AMENDMENT TO THE CLAIMS (CLEAN COPY)

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for a user equipment (UE) to select a mobile communication network to access in a Wireless Local Area Network (WLAN) interworking network, comprising:

- sending, by the UE, an authentication request message to a WLAN Access Network (AN) after a connection between the UE and the WLAN AN is established;
- receiving, by the UE, a User Identity Request message from the WLAN AN;
- obtaining, by the UE, information of the WLAN serving the UE;
- determining, by the UE, whether the information of the WLAN serving the UE matches information of a WLAN stored in the UE;
- if it is determined that the information of the WLAN serving the UE matches the information of the WLAN stored in the UE; returning, by the UE, a User Identity Response message to said WLAN AN, wherein the User Identity response message carries network selection information, and wherein the network selection information is network selection information corresponding to the matched WLAN, and the network selection information indicates a mobile communication network which the UE wants to access to;
- whereby the WLAN AN forwards the authentication request message to the mobile communication network indicated in the network selection information.

2. (Currently Amended) The method according to Claim 1:

- wherein if it is determined that the information of the WLAN serving the UE does not match information of the WLAN stored in the UE, the method further comprises:

- returning, by the UE, a User Identity Response message to the WLAN AN, wherein the User Identity Response message carries network selection information, and wherein the network selection information is information of a pre-configured mobile communication network with the highest priority;

- wherein if the WLAN AN determines that the WLAN AN is able to route the authentication request message, it forwards the authentication request message to the mobile communication network indicated in the received network selection information; or

if the WLAN AN determines that the WLAN AN is not able to route the authentication request message, it sends a notification signal to the UE, wherein the notification signal indicates the UE to perform subsequent operations.

3. (Currently Amended) The method according to Claim 2, wherein, said information includes WLAN identity information.

4. (Currently Amended) The method according to Claim 3,

if it is determined that the identity information of the WLAN serving the UE is not stored in said UE when the UE has successfully accessed the mobile communication network indicated in the network selection information, the method further comprises:

storing the identity information of the WLAN serving the UE,

wherein the information of the mobile communication network is used as the network selecting information corresponding to the identity information of the WLAN serving the UE.

5. (Currently amended) The method according to Claim 2, wherein, said pre-configured mobile communication network with the highest priority is a home network.

6. (Currently Amended) The method according to Claim 3, wherein, said WLAN identity information is an Access Point Identity (APID) or a Service Set Identity (SSID), and wherein said Access Point Identity (APID) is a Media Access Control (MAC) address of an Access Point (AP).

7. (Canceled)

8. (Currently Amended) The method according to Claim 2, wherein the network selection information has a valid survival time, and the method further comprising:

determining whether the valid survival time of the network selection information has exceeded;

and wherein if it is determined that the information of the WLAN serving the UE matches information of the WLAN stored in the UE and that the valid survival time of the stored network selection information has not exceeded, using the network selection

information corresponding to the matched WLAN as the network selection information to be carried; or

if it is determined that the valid survival time of the stored network selection information has exceeded, using the information of a pre-configured mobile communication network with the highest priority as the network selection information to be carried.

9. (Cancelled)

10. (Currently Amended) The method according to Claim 8, further comprising:

when the UE has successfully accessed the mobile communication network indicated in the network selection information, determining whether the UE has stored the information of the mobile communication network;

if the UE has not stored the information of the mobile communication network, storing the identity information of the WLAN serving the UE and the information of the mobile communication network, wherein the information of the mobile communication network is used as the network selection information corresponding to the identity information of the WLAN serving the UE, and resetting the valid survival time of the currently stored network selection information; or

if the UE has stored the information of the mobile communication network, determining whether the information of the mobile communication network is the network selection information corresponding to the identity information of the WLAN serving the UE, or

if the information of the mobile communication network is not the network selection information corresponding to the identity information of the WLAN serving the UE, resetting said valid survival time of the network selection information of the mobile communication network.

11. (Currently Amended) The method according to Claim 2, further comprising:

setting a valid usage times for the stored network selection information.

12. (Currently Amended) The method according to Claim 11, further comprising:

if the identity information of the WLAN serving the UE is stored in said, determining whether the valid usage times of the stored network selection information corresponding to the identity information of WLAN serving the UE have been consumed,

if the valid usage times of the stored network selection information corresponding to the identity information of WLAN serving the UE have been consumed, using the pre-configured mobile communication network with the highest priority as the network selection information to be carried; or

if the valid usage times of the stored network selection information corresponding to the identity information of WLAN serving the UE have not been consumed, regarding the valid usage times of the stored network selection information corresponding to the identity information of WLAN serving the UE as the network selection information to be carried, and the valid usage time being consumed.

13. (Currently Amended) The method according to Claim 11, further comprising:

when the UE has successfully accessed the mobile communication network indicated in the network selection information, determining whether the UE has stored the mobile communication network;

if the UE has not stored the mobile communication network, storing the mobile communication network-as the network selection information corresponding to the identity information of the WLAN serving the UE together with the identity information of the WLAN serving the UE, and resetting the valid usage times of the currently stored network selection information; or

if the UE has stored the mobile communication network, determining whether the information of the mobile communication network is the network selection information corresponding to the identity information of the WLAN serving the UE, and

if the information of the mobile communication network is not the network selection information corresponding to the identity information of the WLAN serving the UE, resetting the valid usage times of the network selection information.

14. (Currently Amended) The method according to Claim 8, further comprising:

deleting the identity information of the WLAN and corresponding network selection information stored by the UE, when the valid survival time corresponding to the network selection information is exceeded.

15. (Currently Amended) The method according to Claim 4, further comprising:

setting a threshold of the amount of the information permitted to be stored in the UE,
determining whether the number of the identity information of the current WLAN and
corresponding network selection information exceeds the threshold of the amount of
information permitted to be stored,

if the number of the identity information of the current WLAN and corresponding
network selection information exceeds the threshold, deleting the old information of the
current WLAN or corresponding network selected information, and storing the identity
information of the WLAN serving the UE and its-corresponding network selection information
of serving the UE.

16. (Currently amended) The method according to Claim 1, wherein said network selection
information is contained in a Network Access Identity (NAI).

17. (Currently Amended) The method according to Claim 1, after said sending a notification
signal to said UE, the method comprising:

re-selecting, by the UE, a mobile communication network, and obtaining the network
information corresponding to the re-selected mobile communication network; and

sending a message carrying the re-selected information of the new network to the
WLAN AN.

18. (Currently Amended) The method according to Claim 17, further comprising:

Waiting, by the WLAN AN, for a response message from said UE for a certain time, if
no response has been received, sending a Selection Result Request to said UE.

19. (Cancelled)

20. (Currently Amended) The method according to Claim 1, wherein a-notification signal is
sent to said UE from the WLAN AN,

the notification signal indicates that the current selected network is invalid and downloading of
mobile communication network information is needed, and wherein the method further
comprises:

determining, by the UE, whether to download the mobile communication network information,

if the downloading the mobile communication network information is needed, said WLAN UE returning a response, wherein the response indicates to download the mobile communication network information;

whereby the mobile communication network information is sent to said UE upon receiving the response;

after receiving the mobile communication network information, re-selecting, by the UE, a mobile communication network according to receiving the mobile communication network information, and re-sending an Access Authentication Request carrying said re-selected network selection information to the WLAN AN.

21-24. (Cancelled)

25. (Currently amended) The method according to Claim 1, wherein, said WLAN interworking network is a 3GPP-WLAN interworking network.

26. (Currently amended) The method according to Claim 1, wherein, said mobile communication network is a public land mobile network (PLMN).

27. (Currently Amended) The method according to Claim 12, further comprising:

deleting the identity information of the WLAN and its corresponding network selection information stored by the UE, when the valid usage times corresponding to the network selection information have been consumed.

28. (Currently Amended) The method according to Claim 10, further comprising:

setting a threshold of the amount of the information permitted to be stored in the UE,
determining whether the number of the identity information of the current WLAN and its corresponding network selection information exceeds said threshold of the amount of information permitted to be stored,

if the number of the identity information of the current WLAN and corresponding network selection information exceeds the threshold, deleting old information of the current

WLAN or corresponding network selected information, and storing the identity information of the WLAN serving the UE and its corresponding network selection information of the WLAN.

29. (Currently Amended) The method according to Claim 13, further comprising:

- setting a threshold for the amount of the information permitted to be stored in the UE,
- determining whether the number of the identity information of the current WLAN and its corresponding network selection information exceeds said threshold of the amount of information permitted to be stored,

- if the number of the identity information of the current WLAN and corresponding network selection information exceeds the threshold, deleting old information of the current WLAN or corresponding network selected information, and storing the identity information of the WLAN serving the UE and its corresponding network selection information of the WLAN.

30. (New) A system for selecting a mobile communication network to access in a Wireless Local Area Network (WLAN) interworking network, comprising a user equipment (UE) and a WLAN Access Network (AN),

- wherein the UE is configured to:

- send an authentication request message to the WLAN AN after a connection between the UE and the WLAN AN is established;

- receive a User Identity Request message from the WLAN AN;

- obtain information of the WLAN serving the UE;

- determine whether the information of the WLAN serving the UE matches information of a WLAN stored in the UE;

- if it is determined that the information of the WLAN serving the UE matches the information of the WLAN stored in the UE; return a User Identity Response message to the WLAN AN, wherein the User Identity Response message carries network selection information, and wherein the network selection information is network selection information corresponding to the matched WLAN, and the network selection information indicates a mobile communication network which the UE wants to access to; and

- the WLAN AN is configured to:

- receive the User Identity Response message;

- forward the authentication request message to the mobile communication network indicated in the network selection information.

31. (New) A user equipment (UE) for selecting a mobile communication network to access in a Wireless Local Area Network (WLAN) interworking network, wherein the UE communicates with a WLAN Access Network (AN),

wherein the UE is configured to:

send an authentication request message to the WLAN AN after a connection between the UE and the WLAN AN is established;

receive a User Identity Request message from the WLAN AN;

obtain information of the WLAN serving the UE;

determine whether the information of the WLAN serving the UE matches information of a WLAN stored in the UE;

if it is determined that the information of the WLAN serving the UE matches the information of the WLAN stored in the UE; return a User Identity Response message to the WLAN AN, wherein the User Identity Response message carries network selection information, and wherein the network selection information is network selection information corresponding to the matched WLAN, and the network selection information indicates a mobile communication network which the UE wants to access to;

whereby the WLAN AN forwards the authentication request message to the mobile communication network indicated in the received network selection information.